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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/526,434

03/03/2005

Sadaaki Hirai

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ALEXANDRIA, VA 22320

EXAMINER

LIAO, DIANA J

ART UNIT

PAPER NUMBER

1709

MAIL DATE

DELIVERY MODE

10/02/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/526,434

Applicant(s)

HIRAI, SADA AKI

Examiner

Diana J. Liao

Art Unit

1709

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 21-34 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 21-33, drawn to a honeycomb catalyst carrier.

Group II, claim(s) 34, drawn to a method for producing a honeycomb catalyst carrier.

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The requirements for a special technical feature are outlined in Annex B of Appendix A1 of the MPEP (Administrative Instructions under the PCT, "Unity of Invention"). Unity exists only when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding claimed technical features. The express "special technical features" is defined as meaning those technical features that define a contribution which each of the inventions, considered as a whole, makes over the prior art."(Rule 13.2).

The question of unity of invention has been reconsidered retroactively by the examiner in view of the search performed; a review of (Suwabe, et al. US 6,827,754) makes clear that the claimed species is not novel over the prior art. Furthermore, these references appear to demonstrate that the claimed porous honeycomb structured catalyst carrier does not define a contribution which each of the inventions, considered as a whole, makes over the prior art. Accordingly, the prior art of the record supports restriction of the claimed subject matter in to the groups as mentioned immediately above.

The common technical feature of Groups I and II is a honeycomb catalyst carrier with a large number of pores with cells functioning as a fluid passage and an outer wall.

Suwabe, et al. discloses a honeycomb filter that can be used to carry a catalyst, which

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has an outer wall on the periphery (11a) and pores through which fluid can pass (11b, 11c). (Figure 12) Therefore the common technical feature is not expected to overcome

° prior art and there is a lack of unity.

### ***Election of Species***

3. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

A honeycomb catalyst carrier comprising:

- (a) an impregnated part formed in an outermost peripheral part
- (b) an impregnated part formed in the whole porous material of the outer wall
- (c) an intermediate layer of an inorganic material formed between an outer periphery and an inner surface
- (d) a coat layer that covers an outer periphery of the outer wall

Species (a), (b), and (d), the ones which impregnate a substance into the catalyst also **require the further election** of the following species:

- (1) use of a water-insoluble organic material which disappears by burning
- (2) use of an inorganic material

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

4. The claims are deemed to correspond to the species listed above in the following manner:  
(references to lower case roman numerals, e.g. i, ii, etc., have been defined in the claims by the applicant)

Species (a)(1) is claim 21 with part (i), claim 24 with part (iii), and relevant portions of 22, 23, and 26-28, using a water insoluble organic material.

Species (a)(2) is claim 21 with part (i), claim 24 with part (iii), and relevant portions of 22, 23, 26, 29 and 30, using an inorganic material.

Species (b)(1) is claim 24 with part (iv), and relevant portions of 26 and 28, using a water insoluble organic material.

Species (b)(2) is claim 24 with part (iv), and relevant portions of 26, and 30, using an inorganic material.

Species (c) is claim 21 with part (ii), and relevant portions of 22, 23, and 31.

Species (d)(1) is claim 24 with part (v), and relevant portions of 25, 26, 28, and 33, using a water insoluble organic material.

Species (d)(1) is claim 24 with part (v), and relevant portions of 25, 26, 30 and 32, using an inorganic material.

The following claim(s) are generic: 21 and 24.

5. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

Lack of unity of invention may be directly evident "a priori" if before considering the claims in relation to prior art, they do not share a common technical feature. In the case of a species election, it is understood that they share a genus as a common feature. However, the further limitations (species) are imposed in order to make a contribution over prior art. If these species do not share a common technical feature, then they lack unity.

Species (a)-(d) do not share a common technical feature. Species (a) modifies the outermost peripheral part of the structure. Species (b) modifies the whole outer wall. Species (c) creates an intermediate layer beneath the outer wall. Species (d) creates a coating that covers the wall. These embodiments are distinct and do not share a common technical feature, and thus there is a lack of unity.

Species (1) and (2) do not share a common technical feature. Species (1) is an organic material and species (2) is an inorganic material. These are by definition very differently classified substances and have different properties. These species do not share a common technical feature, and thus there is a lack of unity.

### ***Conclusion***

Claims 21-34 are subject to a restriction requirement. Claims 1-20 have been cancelled. No claims have been allowed at this time.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diana J. Liao whose telephone number is 571-270-3592. The examiner can normally be reached on Monday - Friday 7:30am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on 571-272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DJL

VICKIE Y. KIM  
SUPERVISORY PATENT EXAMINER

